

Appl. No 09/889,106
 Amtd. Dated July 23, 2003
 Reply to Office action of Jan. 23, 2003

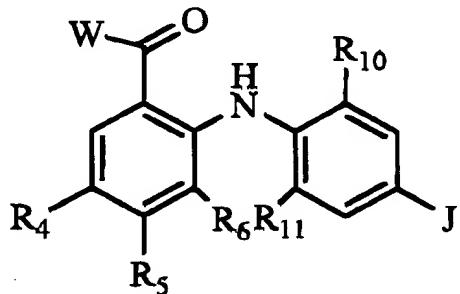
-2-

5940-01-SMH

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A compound of formula (I):



(I)

wherein

W is OR₁, NR₂OR₁, NR_AR_B, NR₂NR_AR_B, O(CH₂)₁₋₄NR_AR_B, or NR₂(CH₂)₁₋₄NR_AR_B; or O(CH₂)₁₋₄OR₁, or NR₂(CH₂)₁₋₄OR₁;

R₁ is H, C₁₋₈ alkyl, C₃₋₈ alkenyl, C₃₋₈ alkynyl, C₃₋₈ cycloalkyl, phenyl, (phenyl)C₁₋₄ alkyl, (phenyl)C₃₋₄ alkenyl, (phenyl)C₃₋₄ alkynyl, (C₃₋₈ cycloalkyl)-C₁₋₄ alkyl, (C₃₋₈ cycloalkyl)C₃₋₄ alkenyl, or (C₃₋₈ cycloalkyl)C₃₋₄ alkynyl; C₃₋₈ heterocyclic radical, (C₃₋₈ heterocyclic radical)C₁₋₄ alkyl, (C₃₋₈ heterocyclic radical)C₃₋₄ alkenyl, or (C₃₋₈ heterocyclic radical)C₃₋₄ alkynyl;

each of R₂ and R₃ is independently H, phenyl, C₁₋₄ alkyl, C₃₋₈ alkynyl, C₃₋₈ cycloalkyl, or (C₃₋₈ cycloalkyl)C₁₋₄ alkyl;

each of R₄, R₅ and R₆ is independently H, Cl, F, or Br;

Appl. No 09/889,106
 Amdt. Dated July 23, 2003
 Reply to Office action of Jan. 23, 2003

-3-

5940-01-SMH

R_A is H, C₁₋₆ alkyl, C₃₋₈ alkenyl, C₃₋₈ alkynyl, C₃₋₈ cycloalkyl, phenyl, (C₃₋₈ cycloalkyl)C₁₋₄ alkyl, (C₃₋₈ cycloalkyl)C₃₋₄ alkenyl, (C₃₋₈ cycloalkyl)C₃₋₄ alkynyl, C₃₋₈ heterocyclic radical, (C₃₋₈ heterocyclic radical)C₁₋₄ alkyl, (aminosulfonyl)phenyl, [(aminosulfonyl)phenyl]C₁₋₄ alkyl, (aminosulfonyl)C₁₋₆ alkyl, (aminosulfonyl)C₃₋₆ cycloalkyl, or [(aminosulfonyl)C₃₋₆ cycloalkyl]C₁₋₄ alkyl;

R_B is H, C₁₋₈ alkyl, C₃₋₈ alkenyl, C₃₋₈ alkynyl, C₃₋₈ cycloalkyl, or phenyl;

J is SR_C , ΘR_C , SO_2R_C , SOR_C , $SO_2NR_DR_E$, C₁₋₈ alkyl, C₃₋₈ alkenyl, C₃₋₈ alkynyl, C₃₋₈ cycloalkyl, C₅₋₈ cycloalkenyl, phenyl, (C₃₋₈ cycloalkyl)C₁₋₄ alkyl, (C₃₋₈ cycloalkyl)C₃₋₄ alkenyl, (C₃₋₈ cycloalkyl)C₃₋₄ alkynyl, C₃₋₈ heterocyclic radical, (C₃₋₈ heterocyclic radical)C₁₋₄ alkyl, -M'E'G', (heterocyclic radical)-M'E'G', or (cycloalkyl)-M'-E'-G';

M' is O, SO, SO₂, NR_E, (CO)NR_E, NR_E(CO), SO₂NR_E, NR_ESO₂, or CH₂;

E' is absent (a covalent bond), (CH₂)₁₋₄ or (CH₂)_mO(CH₂)_p where 1 ≤ (each of m and p independently) ≤ 3 and 2 ≤ (m + p) ≤ 4;

G' is OR₃, SO₂R_C, or NR_FR_G; provided that where p = 1, then G' is H;

each of R_C, R_D, R_E, R_F and R_G is independently selected from H, C₁₋₆ alkyl, C₃₋₄ alkenyl, C₃₋₄ alkynyl, C₃₋₆ cycloalkyl, C₃₋₆ heterocyclic radical, and phenyl; NR_FR_G and NR_DR_E can each also independently be selected from morpholinyl, pyrazinyl, piperazinyl, pyrrolidinyl, or piperadinyl;

Appl. No 09/889,106
Amdt. Dated July 23, 2003
Reply to Office action of Jan. 23, 2003

-4-

5940-01-SMH

R_{10} is H, C₁₋₄ alkyl, halo, NO₂, or SO₂NR_HR_I; and

R_{11} is H, halo, or NO₂;

wherein each hydrocarbon radical or heterocyclic radical above is optionally substituted with between 1 and 3 substituents independently selected from halo, C₁₋₄ alkyl, C₃₋₆ cycloalkyl, C₂₋₄ alkenyl, C₂₋₄ alkynyl, phenyl, hydroxy, amino, (amino)sulfonyl, and NO₂, wherein each substituent alkyl, cycloalkyl, alkenyl, alkynyl or phenyl is in turn optionally substituted with between 1 and 3 substituents independently selected from halo, C₁₋₂ alkyl, hydroxy, amino, and NO₂;

or a pharmaceutically acceptable salt or C₁₋₇ ester thereof.

2. (Original) A compound of claim 1, wherein R_C is C₁₋₂ alkyl.

3. (Original) A compound of claim 1, wherein W is OH.

4. (Original) A compound of claim 1, wherein W is NHOH.

5. (Original) A compound of claim 1, wherein W is NHO(cyclopropylmethyl).

6. (Original) A compound of claim 1, wherein R₁₀ is methyl or chloro.

7. (Original) A compound of claim 1, where R₁₁ is fluoro.

8. (Original) A compound of claim 1, where R₁₁ is H.

Appl. No 09/889,106
Amtd. Dated July 23, 2003
Reply to Office action of Jan. 23, 2003

-5-

5940-01-SMH

9. (Original) A compound of claim 1, wherein J is trihalomethyl or methylthio.

10. (Cancelled) ~~A compound of claim 1, wherein J is 1,2,5-thiadiazol-3-yl.~~

11. (Original) A compound of claim 1, wherein J is SO_2CH_3 .

12. (Original) A compound of claim 1, wherein J is SOCH_3 .

13. (Original) A compound of claim 1, wherein J is C₂₋₈ alkynyl where the triple bond is between the carbon atoms alpha and beta to the phenyl group.

14. (Original) A compound of claim 1, wherein R₁ has at least one hydroxy substituent.

15. (Original) A compound of claim 1, wherein R₁ is H, methyl, ethyl, propyl, isopropyl, isobutyl, benzyl, phenethyl, allyl, C₃₋₅ alkenyl, C₃₋₅ alkynyl, C₃₋₆ cycloalkyl, (C₃₋₅ cycloalkyl)C₁₋₂ alkyl, or (C₃₋₅ heterocyclic radical)-C₁₋₂ alkyl.

16. (Original) A compound of claim 15, wherein R₁ is H or (C₃₋₄ cycloalkyl)-C₁₋₂ alkyl.

17. (Original) A compound of claim 1, wherein R₂ is H, methyl, C₃₋₄ alkynyl, C₃₋₅ cycloalkyl, or (C₃₋₅ cycloalkyl)methyl.

18. (Currently Amended Original) A compound of claim 1, wherein R_A is H, methyl, ethyl, isobutyl, hydroxyethyl, hydroxypropyl, cyclopropylmethyl, cyclobutylmethyl, C₂₋₄ alkynyl, phenyl, 2-piperidin-1-yl ethyl, 2,3-dihydroxy-propyl, 3-[4-(2-hydroxyethyl)-piperazin-1-yl] propyl, 2-pyrrolidin-1-yl ethyl, or 2-diethylamino-ethyl; and R_B is H; or where R_B is methyl and R_A is phenyl.

A2

Appl. No 09/889,106

-6-

5940-01-SMH

Amtd. Dated July 23, 2003

Reply to Office action f Jan. 23, 2003

19. (Original) A compound of claim 1, wherein each of R₄ and R₆ is H, and R₅ is F.

20. (Original) A compound of claim 1, wherein each of R₄, R₅, and R₆ is F.

21. (Original) A compound of claim 1, wherein each of R₄ and R₅ is F and R₆ is Br.

22. (Original) A compound of claim 1, wherein R₅ is F.

23. (Original) A compound of claim 1, having the structure:

4-fluoro-2-(2-methyl-4-methylsulfanyl-phenylamino)-benzoic acid; 5-bromo-3,4-difluoro-2-(2-methyl-4-methylsulfanyl-phenylamino)-benzoic acid; 3,4-difluoro-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzoic acid; 2-(4-methanesulfinyl-2-methyl-phenylamino)-4-nitro-benzoic acid; 3,4,5-trifluoro-2-(4-methanesulfonyl-2-methyl-phenylamino)-benzoic acid; 3,4-difluoro-2-(2-methyl-4-methylsulfanyl-phenylamino)-benzoic acid; 2-(2-methyl-4-methylsulfanyl-phenylamino)-4-nitro-benzoic acid; 3,4,5-trifluoro-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzoic acid; 4-fluoro-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzoic acid; 5-bromo-3,4-difluoro-2-(4-methanesulfonyl-2-methyl-phenylamino)-benzoic acid; 3,4,5-trifluoro-2-(2-methyl-4-methylsulfanyl-phenylamino)-benzoic acid; 4-fluoro-2-(4-methane-sulfinyl-2-methyl-phenylamino)-benzoic acid; 5-bromo-3,4-difluoro-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzoic acid; 3,4-difluoro-2-(4-methanesulfonyl-2-methyl-phenylamino)-benzoic acid; 2-(4-methanesulfonyl-2-methyl-phenylamino)-4-nitro-benzoic acid; N-cyclopropylmethoxy-4-fluoro-2-(2-methyl-4-methylsulfanyl-phenylamino)-benzamide; 5-bromo-N-cyclopropylmethoxy-3,4-difluoro-2-(2-methyl-4-methylsulfanyl-phenylamino)-benzamide; N-cyclopropylmethoxy-3,4-difluoro-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzamide; N-cyclopropylmethoxy-2-(4-methanesulfinyl-2-methyl-phenylamino)-4-nitro-benzamide; N-cyclopropylmethoxy-3,4,5-trifluoro-2-(4-methanesulfonyl-2-methyl-phenylamino)-benzamide; N-cyclopropylmethoxy-3,4,

Appl. No 09/889,106

-7-

5940-01-SMH

Andt. Dated July 23, 2003

Reply to Office action of Jan. 23, 2003

difluoro-2-(2-methyl-4-methylsulfanyl-phenylamino)-benzamide; N-cyclopropylmethoxy-2-(2-methyl-4-methylsulfanyl-phenylamino)-4-nitro-benzamide; N-cyclopropylmethoxy-3,4,5-trifluoro-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzamide; N-cyclopropylmethoxy-4-fluoro-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzamide; 5-bromo-N-cyclopropylmethoxy-3,4-difluoro-2-(4-methanesulfonyl-2-methyl-phenylamino)-benzamide; N-cyclopropylmethoxy-3,4,5-trifluoro-2-(2-methyl-4-methylsulfanyl-phenylamino)-benzamide; N-cyclopropylmethoxy-4-fluoro-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzamide; 5-bromo-N-cyclopropylmethoxy-3,4-difluoro-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzamide; N-cyclopropylmethoxy-3,4-difluoro-2-(4-methanesulfonyl-2-methyl-phenylamino)-benzamide; or N-cyclopropylmethoxy-2-(4-methanesulfonyl-2-methyl-phenylamino)-4-nitro-benzamide.

24. (Original) A compound of claim 1, having the structure:

4-fluoro-N-hydroxy-2-(2-methyl-4-methylsulfanyl-phenylamino)-benzamide; 5-bromo-3,4-difluoro-N-hydroxy-2-(2-methyl-4-methylsulfanyl-phenylamino)-benzamide; 3,4-difluoro-N-hydroxy-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzamide; N-hydroxy-2-(4-methanesulfinyl-2-methyl-phenylamino)-4-nitro-benzamide; 3,4,5-trifluoro-N-hydroxy-2-(4-methanesulfonyl-2-methyl-phenylamino)-benzamide; 3,4-difluoro-N-hydroxy-2-(2-methyl-4-methylsulfanyl-phenylamino)-benzamide; N-hydroxy-2-(2-methyl-4-methylsulfanyl-phenylamino)-4-nitro-benzamide; 8: 3,4,5-trifluoro-N-hydroxy-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzamide; 4-fluoro-N-hydroxy-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzamide; 5-bromo-3,4-difluoro-N-hydroxy-2-(4-methanesulfonyl-2-methyl-phenylamino)-benzamide; 3,4,5-trifluoro-N-hydroxy-2-(2-methyl-4-methylsulfanyl-phenylamino)-benzamide; 4-fluoro-N-hydroxy-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzamide; 5-bromo-3,4-difluoro-N-hydroxy-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzamide; 3,4-

Appl. No 09/889,106

-8-

5940-01-SMH

Amtd. Dated July 23, 2003

Reply to Office action of Jan. 23, 2003

difluoro-N-hydroxy-2-(4-methanesulfonyl-2-methyl-phenylamino)-benzamide; or N-hydroxy-2-(4-methanesulfonyl-2-methyl-phenylamino)-4-nitro-benzamide.

25. (Cancelled)

26. (Currently Amended) The compound of claim 1, having a structure selected from:

5-bromo-2-(2-chloro-4-methylsulfanyl-phenylamino)-3,4-difluoro-benzoic acid; 2-(2-chloro-4-methanesulfinyl-phenylamino)-3,4-difluoro-benzoic acid; 2-(2-chloro-4-methanesulfonyl-phenylamino)-3,4,5-trifluoro-benzoic acid; 2-(2-chloro-methylsulfanyl-phenylamino)-3,4-difluoro-benzoic acid; 5-bromo-2-(2-chloro-4-methanesulfonyl-phenylamino)-3,4-difluoro-benzoic acid; 2-(2-Chloro-4-methanesulfonyl-phenylamino)-3,4-difluoro-benzoic acid; 5-bromo-2-(2-chloro-4-methylsulfanyl-phenylamino)-N-cyclopropylmethoxy-3,4-difluoro-benzamide; 2-(2-chloro-4-methanesulfinyl-phenylamino)-N-cyclopropylmethoxy-3,4-difluoro-benzamide; 2-(2-chloro-4-methanesulfonyl-phenylamino)- N-cyclopropylmethoxy-3,4,5-trifluoro-benzamide; 2-(2-chloro-4-methylsulfanyl-phenylamino)- N-cyclopropylmethoxy-3,4,5-trifluoro-benzamide; 2-(2-chloro-4-methylsulfanyl-phenylamino)- N-cyclopropylmethoxy-3,4-difluoro-benzamide; 2-(2-chloro-4-methanesulfonyl-phenylamino)- N-cyclopropylmethoxy-3,4-difluoro-benzamide; 2-(2-chloro-4-methanesulfonyl-phenylamino)- N-cyclopropylmethoxy-3,4,5-trifluoro-benzamide; and 2-(2-chloro-4-methanesulfonyl-phenylamino)- N-cyclopropylmethoxy-3,4-difluoro-benzamide; 2-[2-chloro-4-(3H-imidazol-1-yl)-phenylamino]-N-cyclopropylmethoxy-3,4-difluoro-benzamide; 2-(2-chloro-4-[1,2,5]thiadiazol-3-yl-phenylamino)-N-cyclopropylmethoxy-3,4,5-trifluoro-benzamide; 2-[4-(2-chloro-4-chloro-[1,2,5]thiadiazol-3-yl)-phenylamino]-3,4,5-trifluoro-benzoic acid; 2-[2-chloro-4-(4-chloro-[1,2,5]thiadiazol-3-yl)-phenylamino]-N-cyclopropylmethoxy-3,4,5-trifluoro-benzamide; 2-[4-[4-(2-dimethylamino-ethoxy)-[1,2,5]thiadiazol-3-yl]-2-methyl-

Appl. No 09/889,106

-9-

5940-01-SMH

Amdt. Dated July 23, 2003

Reply to Office action of Jan. 23, 2003

A3

~~phenylamino} 3,4,5-trifluoro-benzoic acid; 2-(2-chloro-4-[4-(2-piperidin-1-yl-ethoxy)-[1,2,5]thiadiazol-3-yl]-phenylamino)-N-cyclopropylmethoxy-3,4,5-trifluoro-benzamide.~~

27. (Original) The compound of claim 1, having a structure selected from:

2-(4-Ethynyl-2-methyl-phenylamino)-4-fluoro-benzoic acid; 5-Bromo-2-(4-ethynyl-2-methyl-phenylamino)-3,4-difluoro-benzoic acid; N-Cyclopropylmethoxy-2-(4-ethynyl-2-methyl-phenylamino)-3,4-difluoro-benzamide; N-Cyclopropylmethoxy-2-(4-ethynyl-2-methyl-phenylamino)-4-nitro-Benzamide; 2-(4-Ethynyl-2-methyl-phenylamino)-3,4,5-trifluoro-N-hydroxy-benzamide; 2-(4-Ethynyl-2-methyl-phenylamino)-3,4-difluoro-benzoic acid; 2-(4-Ethynyl-2-methyl-phenylamino)-4-nitro-benzoic acid; N-Cyclopropylmethoxy-2-(4-ethynyl-2-methyl-phenylamino)-3,4,5-trifluoro-benzamide; 4-Fluoro-N-hydroxy-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzamide; 5-Bromo-2-(4-ethynyl-2-methyl-phenylamino)-3,4-difluoro-N-hydroxy-benzamide; 2-(4-Ethynyl-2-methyl-phenylamino)-3,4,5-trifluoro-benzoic acid; N-Cyclopropylmethoxy-2-(4-ethynyl-2-methyl-phenylamino)-4-fluoro-benzamide; 5-Bromo-N-cyclopropylmethoxy-2-(4-ethynyl-2-methyl-phenylamino)-3,4-difluoro-benzamide; 2-(4-Ethynyl-2-methyl-phenylamino)-3,4-difluoro-N-hydroxy-benzamide; 2-(4-Ethynyl-2-methyl-phenylamino)-N-hydroxy-4-nitro-benzamide; 2-(4-Ethynyl-2-methyl-phenylamino)-4-fluoro-benzoic acid; N-Cyclopropylmethoxy-2-(4-ethynyl-2-methyl-phenylamino)-4-fluoro-benzamide; and 4-Fluoro-N-hydroxy-2-(4-methanesulfinyl-2-methyl-phenylamino)-benzamide.

28. (Currently Amended) The compound of claim 1, having a structure selected from:

A4

2-(2-Chloro-4-ethynyl-phenylamino)-4-fluoro-benzoic acid; 5-Bromo-2-(2-chloro-4-ethynyl-phenylamino)-3,4-difluoro-benzoic acid; 2-(2-Chloro-4-ethynyl-phenylamino)-N-cyclopropylmethoxy-3,4-difluoro-benzamide; 2-(2-Chloro-4-ethynyl-phenylamino)-N-cyclopropylmethoxy-4-nitro-benzamide; 2-(2-Chloro-4-ethynyl-phenylamino)-N-hydroxy-3,4,5-trifluoro-benzamide; 2-(2-Chloro-4-ethynyl-phenylamino)-3,4-difluoro-

Appl. No 09/889,106

-10-

5940-01-SMH

Amtd. Dated July 23, 2003

Reply to Office action of Jan. 23, 2003

Gf

benzoic acid; 2-(4-Ethynyl-2-chloro-phenylamino)-4-nitro-benzoic acid; 2-(2-Chloro-4-ethynyl-phenylamino)- N-Cyclopropylmethoxy-3,4,5-trifluoro-benzamide; 2-(2-chloro-4-methanesulfinyl-phenylamino)- 4-fluoro-N-hydroxy-benzamide; 5-Bromo-2-(4-ethynyl-2-chloro-phenylamino)-3,4-difluoro-N-hydroxy-benzamide; 2-(2-Chloro-4-ethynyl-phenylamino)-3,4,5-trifluoro-benzoic acid; 2-(2-Chloro-4-ethynyl-phenylamino)- N-cyclopropylmethoxy-4-fluoro-benzamide; 5-Bromo-2-(2-chloro-4-ethynyl-phenylamino)-N-cyclopropylmethoxy-3,4-difluoro-benzamide; 2-(4-Ethynyl-2-chloro-phenylamino)-3,4-difluoro-N-hydroxy-benzamide; 2-(4-Ethynyl-2-chloro-phenylamino)-N-hydroxy-4-nitro-benzamide; 2-(2-Chloro-4-ethynyl-phenylamino)-4-fluoro-benzoic acid; 2-(2-Chloro-4-ethynyl-phenylamino)- N-cyclopropylmethoxy-4-fluoro-benzamide; and 2-(2-Chloro-4-methanesulfinyl-phenylamino)- 4-fluoro-N-hydroxy-benzamide; and 2-(2-chloro-4-imidazol-1-yl phenylamino)- 3,4-Difluoro-benzoic acid.

29. (Original) A pharmaceutical composition comprising a compound of claim 1 and a pharmaceutically-acceptable carrier.

30. (Withdrawn)

31. (Withdrawn)

32. (Withdrawn)

33. (Withdrawn)

34. (Withdrawn)

35. (Withdrawn)

Appl. No 09/889,106
Amndt. Dated July 23, 2003
Reply to Office action of Jan. 23, 2003

-11-

5940-01-SMH

36. (Withdrawn)

37. (Withdrawn)

38. (Withdrawn)

39. (Withdrawn)

40. (Withdrawn)

41. (Withdrawn)

42. (Withdrawn)

43. (Withdrawn)

44. (Withdrawn)

45. (Withdrawn)

46. (Withdrawn)

47. (Withdrawn)

48. (Withdrawn)

49. (Withdrawn)

Appl. No 09/889,106

-12-

5940-01-SMH

Amdt. Dated July 23, 2003

Reply to Office action of Jan. 23, 2003

50. (Withdrawn)